

# Allergy Relief for Your Child



Children are magnets for colds. But when the “cold” won’t go away for weeks, the culprit may be allergies.

Allergies may be seasonal or they can strike year-round (perennial). In most parts of the United States, plant pollens are often the cause of seasonal allergic rhinitis—more commonly called hay fever. Indoor substances, such as mold, dust mites, and pet dander, may cause the perennial kind.

Up to 40 percent of children suffer from allergic rhinitis, according to the National Institute of Allergy and Infectious Diseases (NIAID). And children are more likely to develop allergies if one or both parents have allergies.

The Food and Drug Administration (FDA) regulates both over-the-counter (OTC) and prescription medicines that offer allergy relief as well as allergen extracts used to diagnose and treat allergies.

## Immune System Reaction

An allergy is a reaction of the immune system to a specific substance, or allergen. The immune system responds to the invading allergen by releasing histamine and other chemicals that typically trigger symptoms in the nose, lungs, throat, sinuses, ears, eyes, skin, or stomach lining, according to the American Academy of Allergy, Asthma and Immunology.

In some children, allergies can also trigger symptoms of asthma—a disease that causes wheezing or difficulty breathing.

If a child has allergies and asthma, “not controlling the allergies can make asthma worse,” says Anthony Durmowicz, M.D., a pediatric pulmonary doctor in FDA’s Division of

Pulmonary, Allergy, and Rheumatology Products.

### Avoiding the Culprit

If your child has seasonal allergies, you may want to pay attention to pollen counts and try to keep your child inside when the levels are high.

- In the late summer and early fall, during ragweed pollen season, pollen levels are highest in the morning.
- In the spring and summer, during the grass pollen season, pollen levels are highest in the evening.
- Some molds, another allergy trigger, may also be seasonal. For example, leaf mold is more common in the fall.
- Sunny, windy days can be especially troublesome for pollen allergy sufferers.

It may also help to keep windows closed in your house and car and run the air conditioner when pollen counts are high.

### Allergy Medicines

For most children, symptoms may be controlled by avoiding the allergen, if known, and using OTC medicines. However, if a child's symptoms are persistent and not relieved by OTC medicines, it is wise to see a health care professional to assess your child's symptoms and see if other treatments, including prescription medicines, may be appropriate. Five types of drugs are generally available (see table on page 3) to help bring your child relief.

While some allergy medicines are approved for use in children as young as six months, Dianne Murphy, M.D., director of FDA's Office of Pediatric Therapeutics, cautions, "Always read the label to make sure the product is appropriate for your child's age. Just because a product's box says that it is intended for children does not mean it is intended for children of all ages."

"Children are more sensitive than adults to many drugs," adds Murphy.

"For example, some antihistamines can have adverse effects at lower doses on young patients, causing excitability or excessive drowsiness."

### More Child-Friendly Medicines

Recent pediatric legislation, including a combination of incentives and requirements for drug companies, has significantly increased research and development of drugs for children and has led to more products with new pediatric information in their labeling. Since 1997, a combination of legislative activities has helped generate studies in children for 400 products.

Many of the older drugs were only tested in adults, says Durmowicz, "but we now have more information available for the newer allergy medications. With the passing of this legislation, there should be more confidence in pediatric dosing and safety with the newer drugs."

The legislation also requires drugs for children to be in a child-friendly formulation, adds Durmowicz. So if the drug was initially developed as a capsule, it has to also be made in a form that a child can take, such as a liquid with cherry flavoring, rapidly dissolving tablets, or strips for placing under the tongue.

### Allergy Shots

Children who don't respond to either OTC or prescription medications, or who suffer from frequent complications of allergic rhinitis, may be candidates for allergen immunotherapy—commonly known as allergy shots. According to NIAID, about 80 percent of people with allergic rhinitis will see their symptoms and need for medicine drop significantly within a year of starting allergy shots.

After allergy testing, typically by skin testing to detect what allergens your child may react to, a health care professional injects the child with "extracts"—small amounts of the allergens that trigger a reaction. The doses are gradually increased so that

the body builds up immunity to these allergens.


Allergen extracts are manufactured from natural substances, such as pollen, insect venoms, animal hair, and foods. More than 1,200 extracts are licensed by FDA.

Some doctors are buying extracts licensed for injection and instructing the parents to administer the extracts using a dropper under the child's tongue, says Jay E. Slater, M.D., director of FDA's Division of Bacterial, Parasitic and Allergenic Products. "While FDA considers this the practice of medicine (and the agency does not regulate the practice of medicine), parents and patients should be aware that there are no allergenic extracts currently licensed by FDA for oral use."


"Allergy shots are never appropriate for food allergies," adds Slater, who is also a pediatrician and allergist. But it's common to use extracts to *test* for food allergies so the child can avoid those foods.

### Transformation in Treatment

"In the last 20 years, there has been a remarkable transformation in allergy treatments," says Slater. "Kids used to be miserable for months out of the year, and drugs made them incredibly sleepy. But today's products are outstanding in terms of safety and efficacy."

Forgoing treatment can make for an irritable, sleepless, and unhappy child, adds Slater, recalling a mother saying, after her child's successful treatment, "I didn't realize I had a nice kid!" 

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## FDA-Approved Drug Options for Treatment of Allergic Rhinitis (Hay Fever) in Children

Drug Type	How Used	Some Examples of Over-the-Counter (OTC) or Prescription (Rx) Drugs (many are available in generic form)	Common Side Effects
Nasal corticosteroids	Usually sprayed in nose once a day	Rx: <ul style="list-style-type: none"> <li>• Nasonex (mometasone furoate)</li> <li>• Flonase (fluticasone propionate)</li> </ul>	Stinging in nose
Oral and topical antihistamines	Orally (pills, liquid, or strip placed under the tongue), nasally (spray or drops), or eye drops	Oral OTC: <ul style="list-style-type: none"> <li>• Benadryl (diphenhydramine)</li> <li>• Chlor-Trimeton (chlorpheniramine)</li> <li>• Allegra* (fexofenadine)</li> <li>• Claritin* (loratadine)</li> <li>• Zyrtec* (cetirizine)</li> </ul> Oral Rx: <ul style="list-style-type: none"> <li>• Clarinex (desloratadine)</li> </ul> Nasal Rx: <ul style="list-style-type: none"> <li>• Astelin (azelastine)</li> </ul> <i>* non-sedating</i>	Some antihistamines may cause drowsiness  Some nasal sprays may cause a bitter taste in mouth, headache, and stinging in nose
Decongestants	Orally and nasally (some-times taken with antihistamines, which used alone do not treat nasal congestion)	Oral Sudafed (pseudoephedrine*), Sudafed PE (phenylephrine)  Oral Rx: <ul style="list-style-type: none"> <li>• Allegra D, which has both an antihistamine (fexofenadine) and decongestant (pseudoephedrine*)</li> </ul> Nasal OTC: <ul style="list-style-type: none"> <li>• Neo-Synephrine (phenylephrine)</li> <li>• Afrin (oxymetazoline)</li> </ul> <i>* Drugs that contain pseudoephedrine are non-prescription but are kept behind the pharmacy counter because of their illegal use to make methamphetamine. You'll need to ask your pharmacist and show identification to buy these drugs.</i>	Using nose sprays or drops more than a few days may cause "rebound" effect, in which nasal congestion gets worse
Non-steroidal nasal sprays	Nasally used 3–4 times a day	OTC: <ul style="list-style-type: none"> <li>• NasalCrom (cromolyn sodium)</li> </ul> Rx: <ul style="list-style-type: none"> <li>• Atrovent (ipratropium bromide)</li> </ul>	Stinging in nose or sneezing; can help prevent symptoms of allergic rhinitis if used before symptoms start
Leukotriene receptor antagonist	Orally once a day (comes in granules to mix with food, and chewable tablets)	Rx: <ul style="list-style-type: none"> <li>• Singulair (montelukast sodium)</li> </ul>	Headache, ear infection, sore throat, upper respiratory infection